IN THE SPECIFICATION:

Change a paragraph beginning on page 8 as follows:

If the SOI is represented as an exponential sinusoidal signal with amplitude A_i, frequency w(t) and phase $\theta_i(t)$:

$$V_{gi} = A_i e^{j(w(t) + \theta_i(t))}$$

then, in an exemplary embodiment of the present invention, the input stage consisting of inductive elements 272, 275, 278 and the base capacitances consisting of transistive elements ~~251, 254, 257, 260~~ 239, 242, 245, 248 establish magnitudes equal to A_i at the base of transistive elements ~~251, 254, 257, 260~~ 239, 242, 245, 248. The phase shift at transistive element 239 is the input phase difference $\theta_{g1}(t) = \theta_1(t) - \theta(t)$, where $\theta_1(t)$ is the phase at the input to inductive element 272. The phase shift at transistive element 242 is $\theta_{g2}(t) = \theta_1(t) - \theta_2(t)$, where $\theta_2(t)$ is the phase at the input to inductive element 275. The phase shift at transistive element 245 is $\theta_{g3}(t) = \theta_2(t) - \theta_3(t)$, where $\theta_3(t)$ is the phase at the input to inductive element 278. The phase shift at transistive element 248 is $\theta_{g4}(t) = \theta_3(t) - \theta_4(t)$, where $\theta_4(t)$ is the phase at the output of inductive element 278. Since V_{gi} is a function of the input phase shifts $\theta_{g1}(t)$, $\theta_{g2}(t)$, $\theta_{g3}(t)$, $\theta_{g4}(t)$, these input phase shifts may be related to the collector terminal of transistive elements 239, 242, 245, and 248 by the relation

$$I_i = g_{mi} V_{gi}$$

where g_{mi} is the transconductance of transistive devices 239, 242, 245, and 248. The value of g_{mi} for each transistive device 239, 242, 245, 248 is assumed equal, although one of ordinary skill in the art will realize that the transconductance values of transistive devices 239, 242, 245, 248 could be different without departing from the spirit and scope of the present invention.
Using this current relation, the simplified circuit of FIG. 3 has identical input-output behavior to the circuit of FIG. 2.